Use of the ACMG & Parks Radio Frequencies

I have been asked to write this article after a recent user conflict involving an ACMG member and a ski area operation. This is the second conflict that has come to my attention in the last 5 years. The article is based on the most current information from Industry Canada and other reliable sources. For additional information consult the article "Practical Guide For Two-Way Radios available from Rescue Dynamics at:
http://www.rescuedynamics.ca/articles/pdfs/2wayradioguide.pdf

For a more complete discussion of radio systems see my article, "Emergency & Radio Communications for Outdoor Guides and Leaders". A revised version will be available in May 2007 by contacting the author.

Who Owns the ACMG Frequency?

Contrary to popular belief the Association of Canadian Mountain Guides DOES NOT own the frequency we commonly refer to as the ACMG frequency. Nor do we have exclusive use of that frequency. Radio frequencies in Canada are regulated by Industry Canada and in essence there is no such thing as exclusive use of a VHF radio frequency. Since there are a limited number of frequencies available, radio frequencies are shared and re-used all across the country. Industry Canada tries to minimize the chance for user conflicts by licensing different users in the same geographic area on different frequencies. They are also much more careful to ensure that agencies such as Parks, Police, EMS and other groups operating repeaters do not share their frequency with anyone else in their geographic location.

The frequency on which the ACMG has been licensed is Alberta and BC wide and thus the potential for conflict is realistic. A search of the Industry Canada radio frequency database shows over 100 licensed users of the frequency that we commonly refer to as the ACMG frequency. More than half of these users are in Alberta and BC. Some of those licensed are ACMG members and related companies. Half of the legally licensed users on that frequency are operating in areas where potential conflict with ACMG users could occur. Examples would be ski areas at Mount Washington, Powder King, Big White, Jasper, Golden, Kimberley and others. Plus there are dozens of CSPS (ski patrol) radios licensed on that frequency.

Who has precedence if both users are legally licensed? In fact nobody might unless there is an emergency. Otherwise, we must share! There is no point in telling people to get off of our frequency as we do not in fact own it, nor do we have exclusive rights to it's use. What is best is if we can agree to share the frequency. They carry on their conversation and then we carry on ours. We play nice.

If we cannot share happily then another good alternative is to move our radio traffic to some other frequency on which we are licensed and carry on our conversation there. That presupposes that the guides involved in the radio conversation have the capability of switching to some other common operating frequency.

If we can identify the other party so that the matter can be amicably resolved after the fact then that is great, but I would caution any member from insisting that anyone else get off of our frequency. They may have as much right to use the frequency as you do, perhaps more (see below).

Who Can Use the ACMG Frequency?

The fact that the ACMG is licensed for a particular frequency DOES NOT mean that any ACMG member can use that frequency. Each individual radio must be licensed to be used on a given frequency and the ACMG only has a couple of licensed radios according to the database. Looking through the database I see the names of several familiar ACMG members like Jeremy and Michael for example. Since they have licensed their individual radios then they can also use the frequency. If you have not individually licensed your radio then you have absolutely no right to use the ACMG frequency. Period.

What if the company I work for has a license to use the ACMG frequency? Remember what I said above, each individual radio must be licensed. One particular mountaineering company on the database is listed as being licensed for use of this frequency. They have some legally licensed radios. If you are using the company radios then you are likely OK. If you are using your own personal radio then you are probably not, unless you are one of the ACMG members who has gone through the process to license your own radio.

Licencing is not difficult if you have a proper commercial radio. You cannot license a ham (amateur) radio on the ACMG or Parks frequencies however and if you bought a ham radio for emergencies you cannot legally operate that radio on commercial radio frequencies for casual day to day communications.

If you are using the ACMG frequency and you have a user conflict I would hope your radio is the one that is licensed. Otherwise you have absolutely no standing legally and could get yourself in hot water by insisting that some other legally licensed operator get off the frequency! That is truly asking for trouble…

Who Can Use Parks Frequencies?

As suggested above, each individual radio must be licensed. Furthermore each radio must be licensed for every frequency used to transmit on that radio. Being licensed on the ACMG frequency does not give you the right to chat on Parks or any other frequencies.

Years ago the Director General of Parks Canada sent a letter to the ACMG agreeing to allow the ACMG to use National Parks repeaters in case of emergencies. We received a similar letter from Alberta Parks. Some ACMG members erroneously believe this gives all ACMG members the right to use Alberta Provincial and National Parks repeaters in the mountains without further licensure. Nothing could be farther from the truth.

What these letters did was effectively make it easier for legitimate ACMG members and companies to license their radios for use on Parks repeaters. Without the license in place the letters are totally meaningless. Getting licensed to use the national or provincial parks

repeaters requires completing an application and paying an annual fee. Remember, each radio must be licensed for every frequency you want to use.

Park's Switch to Narrowband

Of significant interest to those ACMG members who guide in the national parks is the impending shift of national park repeaters from wideband to narrowband VHF FM. In a nutshell this may mean that any older radios may have difficulty being able to access national park repeaters. If you are using a radio older than 5 to 10 years old it stands a very good chance of operating very poorly or not at all on the new narrowband repeaters.

As a word of advice, if you are going to upgrade your radio as a result of this change I would highly suggest one of the many new, small, lightweight and relatively inexpensive multi-channel narrowband commercial radios now available. I would not recommend a ham radio which cannot be licensed on Parks or any other commercial frequencies should the need arise. The price difference between ham and commercial radios has narrowed significantly and commercial radios are now much smaller than they used to be. Plus they are manufactured to more exacting standards and are generally more robust than ham radios. In addition, simply owning an unlicensed ham radio is an offence.

Using Other Repeaters

I used to work at Marmot Basin ski area. I wanted to use my own radio at work plus I wanted to be able to use the Marmot repeater in case of emergencies in the vicinity of Marmot. I got the area manager to write me a letter stating this was OK. I then applied to have the Marmot frequencies added to my license. That was it. They were added to my license with little fuss. The same would apply if you wanted to use the repeaters of Joe Snow Heli Ski Company. Ask permission first, get a letter from them and then get your license amended. Oh, by the way, the additional frequencies didn't cost anything extra.

In situations where you are using someone else's repeater or you have been licensed to use someone else's frequency allocation to communicate with them then you become a third party user. Their communications take precedence over yours. Only use their frequency as necessary to communicate with the them or to communicate in emergencies.

Normal Radio Operations

So, you have a licensed radio and you want to see if anybody else is monitoring the ACMG frequency so you can discuss avalanche and snowpack conditions, now what. Well, turn on your radio and monitor for other radio traffic. After a good wait to be sure you are not going to interrupt another conversation simply identify yourself and your intentions by saying something like:

> *"This is ACMG guide Cereal Sugarloops. Are there any other ACMG guides on frequency to discuss conditions?"*

To call another guide specifically say something like:

> *"This is ACMG guide Cereal Sugarloops calling Jeremy MacGuide. Are you on this frequency Jeremy?"*

Once the other guide(s) identifies themselves simply carry on a normal conversation. Pause every once in a while to see if anyone else wants to join in or use the frequency. When you are done sign off the frequency so that any other shared users can go about their business as well. Always assume somebody else could be sharing the frequency if you are anywhere near civilization, especially ski areas.

If you have a conflict with another user do not get angry. Remember they may have as much right to use the frequency as you do. They may also be ignorant of the fact that radio frequencies in Canada are shared. Politely ask the person if you could contact them later to discuss the situation. Move to another frequency if you can to eliminate the conflict. Try to resolve the conflict amicably without involving Industry Canada. Contact the Executive Director of the ACMG if the conflict occurred on the "ACMG" frequency.

In an emergency everything changes. You may use any frequency at your disposal if you or someone you are aware of is in grave or imminent danger.

Distress Communications / Distress Call

A "Distress Call" is used when a station / radio operator is threatened by grave & imminent danger and requires immediate assistance or when you are aware that a vessel is threatened by grave & imminent danger and requires immediate assistance. This is when you use the classic MAYDAY call.

Even if you don't think anyone can hear you, transmit all of the particulars of your incident and location. Try more than once with your entire message, even if nobody responds. Somebody may hear you but you may not hear them. Be repetitively persistent. Be slow, clear and concise. A proper distress message is comprised of:

- The actual Distress Call - MAYDAY, MAYDAY, MAYDAY this is…
- The call sign of the station in distress or the name of the party
- The particulars of your location plus your heading and speed if you are moving
- The nature of your distress and the kind of assistance required
- Other information necessary to facilitate rescue
- The message is repeated again at least twice if there is no contact.

An example of a distress message is as follows:

> *MAYDAY, MAYDAY, MAYDAY, this is ACMG guide Cereal Sugarloops, ACMG guide Cereal Sugarloops, ACMG guide Cereal Sugarloops. we are on the AA col route on Mt. Athabasca. We have just witnessed two climbers fall 250 meters down the V gullies on Mt. Andromeda at grid reference 619234. We are proceeding to their location and require immediate assistance.*

A Distress Call has absolute priority over all other transmissions. If you hear a distress call, stop all of your communication and monitor the frequency in case you can assist. A station may impose radio silence on stations interfering with distress communications by using the expressions "Stop Transmitting - Distress" or "Silence, Distress".

If you are acknowledging a distress message you should forward any relevant information immediately to the nearest Search and Rescue organization. Continue to monitor the frequency and other appropriate frequencies and notify any other stations which may be of assistance. Stop all radio transmissions which may interfere with the distress communications.

If you are within the national parks using a park repeater in an emergency you may wish to address your message directly to the park dispatcher but otherwise the general format of the call is essentially the same.

Urgency Signal & Messages

If you are not in grave or imminent danger, but you have a very urgent message to transmit concerning the safety of a vessel or of some person on board or within sight, you use what is called an "Urgency Signal". The urgency signal has priority over all other communications except a distress call. The Urgency Message consists of:

- The Urgency signal "PAN PAN, PAN PAN, PAN PAN, this is… the call sign or the name of the party" followed by a message giving further information of the incident in plain language.
- Stations hearing an urgency message are to discontinue communication for 3 minutes, after which, if no further urgency message has been heard, they may resume normal service.

Safety Communications & Messages

A "Safety Signal" is used when you are about to transmit a message concerning the safety of navigation or giving some other important meteorological warning. The safety signal has priority over all other communications except distress and urgency. A Safety Message consists of:

- "SECURITY, SECURITY, SECURITY, this is… the call sign or the name of the party " followed by the message.
- Stations which hear the safety signal must take care not to interfere with the message which follows.

Summary

Understand that radio frequencies are shared and not owned by any one person or group. Except in an emergency, make no demands on other users.

License your individual radio by contacting your local or regional district office of Industry Canada – Spectrum Management and Telecommunications. A list of offices can be found at: http://strategis.ic.gc.ca/epic/site/smt-gst.nsf/en/sf01742e.html

Remember that the order of priority for radio communication is as follows:

- Distress call (MAYDAY - grave & imminent danger)
- Urgency signals (PAN PAN – very urgent message regarding safety)
- Safety signals (SECURITY – important message concerning safety of navigation)
- Routine radio traffic

Special thanks go out to Graham Walker for his assistance with this and other related articles.

About the Author

Cyril Shokoples is an internationally certified Mountain Guide and Past-President of the Association of Canadian Mountain Guides. He has been a member of the Alpine Club of Canada and Edmonton Section since 1975 and received the Silver Rope award in 1988 and the Distinguished Service Award in 2002. He also received the Distinguished Service Award from the Association of Canadian Mountain Guides in 2003. He is a registered Emergency Medical Technician and a life member of the National Association for Search and Rescue (US). He currently resides in Edmonton, Alberta, Canada and is the proprietor of the firm Rescue Dynamics, which is involved in climbing, rescue and safety instruction, as well as mountain guiding.

Cyril's interest in electronics and radio communications spans a period of more than 40 years. He built a crystal radio at age 8, his first short-wave receiver at age 12, his first low power transmitter at age 14 and his first "solid state Hi-Fi" stereo at age 16. He received the award for top marks in electronics studies for three consecutive years in high school, at a time "when a real radio still glowed in the dark". He holds an Advanced Amateur radio operators certificate and his call sign "VE6 MTN" is occasionally heard from the mountaintops on the 2 meter Ham band. His company holds licenses for handheld and mobile radio operation in the VHF commercial bands. He has used every type of communications device mentioned in this article from satellite to short-wave. In short, he is a self – described electronics "geek" and bears the title proudly.

Further information on courses as well as additional copies of this and other technical notes in this series can be obtained directly from Rescue Dynamics. On the internet, visit the Rescue Dynamics Website at – http://www.rescuedynamics.ca